



REMARKS

The above-listed amendments to the specification and claims are being made due to minor clerical/typographical errors in the application. It is submitted that correction of these clerical/typographical errors merely clarifies the specification, and that no new matter is added to the application by entry of these amendments. Applicants respectfully request the consideration and entry of these amendments.

If the Examiner has any questions or concerns, he is hereby earnestly solicited to contact the undersigned at the telephone number or address listed below.

DATE: 4/29/02

Date of Deposit: 4/29/02

I hereby certify that this paper or fee is being deposited with the United States Postal Service as first class mail under 37 CFR 1.8 on the date indicated above and is Addressed to the Commissioner of Patents and Trademarks, Washington, DC 20231

Signature

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Respectfully submitted,

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In the Specification:

Page 4, Line 28:

Preferably, the soot 12 being deposited onto starting member 16 is a silica based soot. More preferably, preform 10 may have one or more regions of doped silica soot. Dopants utilized within the regions of preform 10 include, but are not limited to, Ge, P, Al, B, Ga, In, Sb, Er, Li, Na, K, Rb, Cs, Be, Mg, Ca, Sr, Ba, Ti, Se, Te, Fr, Ra, Bi, or combination thereof. Preform 10 may also have one or more regions of undoped silica soot. In the present example, it is most preferred that an outer region of preform 10 comprises undoped silica soot. In one preferred embodiment, preform 10 includes a first region or portion 20, a second region or radial portion 22 surrounding first region 20, and a third region or radial portion 24 surrounding second region 22. The refractive index profile of an optical waveguide fiber constructed from preform 10 is shown in Fig. 2. In the present example, preform 10 is formed by depositing first region 20 of silica soot doped with a refractive index increasing dopant, such as germanium (e.g., having a Δ_1), depositing second region 22 of silica soot doped with a refractive index [increasing] decreasing dopant such as fluorine (e.g., having a Δ_2), and depositing third region 24 of pure silica soot (e.g., having a Δ_3). The refractive index profile of the present example generally follows the relationship of $\Delta_1 > \Delta_3 > \Delta_2$, however, other profiles may be constructed utilizing the concepts disclosed herein.

Page 6, line 31:

In the illustrated example, as the soot preform 10 is dried and partially sintered, germanium contained within first region 20 is prevented from migrating into second region 22 by glass barrier layer 28, while fluorine doped within second region 22 is prevented from migrating to within first region 20 by glass barrier layer 28. During the drying and partial[ly] sintering steps, fluorine doped within second region 22 migrates into third region 24, thereby resulting in an approximate profile as shown in Fig. 5, that would be exhibited by an optical waveguide fiber drawn from soot preform 10 subsequent to the partial sintering step.

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